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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/879,170	06/13/2001	Eun Cheol Lee	YHK-0066	3664

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EXAMINER

WU, XIAO MIN

ART UNIT	PAPER NUMBER
2674	6

DATE MAILED: 04/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

	Application No.	Applicant(s)
	09/879,170	LEE ET AL. 
	Examiner XIAO M. WU	Art Unit 2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) Responsive to communication(s) filed on 04 April 2003.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) Claim(s) 1-17 is/are pending in the application.
  - 4a) Of the above claim(s) 15-17 is/are withdrawn from consideration.
- 5) Claim(s) 14 is/are allowed.
- 6) Claim(s) 1-4,6-9 and 11-13 is/are rejected.
- 7) Claim(s) 5 and 10 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.
 

If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1)<input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2)<input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3)<input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3</u>.</li> </ol> | <ol style="list-style-type: none"> <li>4)<input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____.</li> <li>5)<input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</li> <li>6)<input type="checkbox"/> Other: _____.</li> </ol> |
|---|--|

## **DETAILED ACTION**

1. Claims 15-17 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Applicant timely traversed the restriction (election) requirement in Paper No. 5.

2. Applicant's election with traverse of Group I(claims 10-14, examiner assumes applicant means claims 1-14 and not 10-14, if this is incorrect, applicant should points out the correct claim number in the next communication) in Paper No. 5 is acknowledged. The traversal is on the ground(s) that a thorough search for the subject matter of each of the designated inventions would encompass a search for the subject matter of the remaining designated inventions. This is not found persuasive because Group I (claims 1-14) and Group (claims 15-17) are required different search as shown by their different classification.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 6, 9 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Ryu et al. (US Patent No. 6,504,519).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C.

102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

As to claim 1, Ryu discloses a plasma display panel (Fig. 7), comprising: an address electrode (X<sub>1</sub> ... X<sub>n</sub>) included in each discharge cell making a unit pixel (51) of the plasma display panel; a plurality of second sustain electrodes (P<sub>1</sub>, Q<sub>1</sub>, Fig. 7; or 100P, 100Q, Fig. 6) positioned at each periphery of the discharge cell (51) in a direction crossing the address electrode (X<sub>1</sub> ... X<sub>n</sub>) to receive a second sustaining pulse (SUSP<sub>p</sub>, SUSP<sub>q</sub>, Fig. 8); and at least one of the first sustain electrodes (C<sub>1</sub>, Fig. 7; or 100C, Fig. 6) positioned at the center of the discharge cell col. 4, line 66 to col. 5, line2) in a direction crossing the address electrode (X<sub>1</sub> ... X<sub>n</sub>) to receive a first sustaining pulse (SUSP<sub>c</sub>, Fig. 8) applied alternatively with respect to the second sustain electrodes (see Fig. 8).

As to claim 2, Ryu discloses that the first sustain electrodes (100C<sub>1</sub>, Fig. 6) are provided between the second sustain electrodes (100P<sub>1</sub>, 100Q<sub>1</sub>, Fig. 6).

As to claim 3, Ryu discloses a bus electrode (107, Fig. 7) arranged in parallel to the first sustain electrode (100C, Fig. 7) at the center of the first sustain electrode (100C, Fig. 7).

As to claim 6, Ryu discloses a first barrier rib (3, Fig. 2) formed in parallel to the address electrode (4, Fig. 3)

As to claim 9, Ryu discloses a scan/sustain driver (42, Fig. 7) connected to the first sustain electrode (C<sub>1</sub> ... C<sub>m</sub>, Fig. 7) to apply the scanning pulse (-SCP<sub>1</sub> ... -SCPM, Fig. 8) and the first sustaining pulse (SUSP<sub>c</sub>, Fig. 8); and a common sustaining driver (44, Fig. 7) connected

to the second sustain electrode (P1 ..Pm, Q1 ... Qm, Fig. 7) to apply the second sustaining pulse (SUSPp, SUSPq, Fig. 8).

As to claim 13, note the discussion of claim 1 above, Ryu further discloses applying a reset pulse (RPp, Fig. 8) to the second sustain electrode (P1 ...Pm, Fig. 8) and applying a data pulse (WP, Fig. 8) synchronized with the scanning pulse (-SCP1 ... SCPm, Fig. 8) to the scanning electrode (C1 ...Cm, Fig. 8).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 7, 8, 11 and 12 are rejected under 35 U.S.C. 103(a) as being obvious over Ryu et al. (US Patent No. 6,504,519) in view of Kim (US Patent No. 6,380,678).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention “by another”; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(l)(1) and § 706.02(l)(2).

As to claims 7 and 8, it is noted that Ryu does not disclose a second barrier rib formed in a direction crossing the first barrier rib and the second barrier rib is provided at an interface of the discharge cells. Kim is cited to teach a plasma display device comprises first and second barrier ribs (121, 122, Fig. 3) providing at an interface of the discharge cells (see Fig. 3). It would have been obvious to one of ordinary skill in the art to have modified Ryu with the features of the two barrier ribs as taught by Kim so that the discharge occurs within each of discharge area formed by the first and second barrier ribs.

As to claims 11, Ryu further disclose a dielectric layer (8, Fig. 2) formed in a manner to cover the first and second sustain electrodes. It is noted that Ryu fails to disclose at least two floating electrodes formed in parallel to the first and second sustain electrode at the rear side of the dielectric layer. Kim is cited to teach a plasma display device comprises two floating electrodes (130, 130', Fig. 4) formed in parallel to the first and second sustain electrodes (211, Fig. 4) at the rear side of the dielectric layer (212, Fig. 4). It would have been obvious to one of ordinary skill in the art to have modified Ryu with the features of the floating electrodes as taught by Kim because the wall charge can be generated on the sides of the isolation wall in which the floating electrodes are formed (col. 4, lines 38-53).

As to claim 12, Kim further discloses the floating electrodes (130, Fig. 4) are provided under the second sustain electrode (211, Fig. 4).

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being obvious over Ryu et al. (US Patent No. 6,504,519) in view of Marcotte (US Patent No. 6,118,214).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in

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the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(l)(1) and § 706.02(l)(2).

As to claim 4, it is noted that Ryu does not disclose bus electrodes arranged in parallel to the first sustain electrode at each edge of the first sustain electrode. Marcotte is to teach a plasma display device comprises bus electrodes arranged in parallel to the sustain electrode. For example, as shown in 4, Marcotte discloses border electrodes 64 which are arranged in parallel to the sustain electrode 56. It would have been obvious to one of ordinary skill in the art to have modified Ryu with the features of the bus electrode as taught by Marcotte because the border electrodes can provide a uniform boundary for the discharge gap and ensure a uniform discharge voltage between adjacent electrode structures (col. 3, lines 33-37).

*Allowable Subject Matter*

9. Claim 14 is allowed.
10. Claims 5 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The US Patents 4,924,218, 5,852,347, 5,998,935, 6,188,374, 6,195,073, 6,288,692, 6,344,841, 6,375,452 are cited to teach a plasma display device.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xiao Wu whose telephone number is (703) 305-4721.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (703) 305-4709.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

**(703) 872-9314**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377

xw

April 18, 2003

  
**XIAO WU**  
**PRIMARY EXAMINER**  
**ART UNIT 2674**